

Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of )
)
TMI Communications and Company, L.P. )
) File No. SES-LIC-19990318-00435
)
For Blanket Authorization to operate up )
100,000 mobile satellite earth terminals (METs) )
)
though Canadian-licensed satellite MSAT-1 at )
106.5 degrees W.L. in frequency bands )
1631.5-1660.5 MHz (transmit) and )
1530-1559 MHz (receive) throughout the )
Continental United States, United States )
Territories, Alaska, and Hawaii )

ORDER AND AUTHORIZATION

Adopted: September 22, 2000

Released: September 25, 2000

By the Chief, Satellite and Radiocommunication Division:

I. Introduction

1. By this Order, we grant TMI Communications and Company, L.P. (TMI) blanket authority, subject to conditions, to operate mobile earth terminals (METs) to provide land and maritime mobile satellite service (MSS) in the United States via a Canadian-licensed satellite operating in portions of the L-band spectrum. Grant of this application will facilitate increased competition in the MSS market, providing U.S. consumers with additional service options as well as other benefits of competition such as lower prices, innovation, and improved service.

II. Background

2. On March 18, 1999, TMI, a Canadian Company, filed an application requesting blanket authorization to operate up to 100,000 full-duplex METs throughout the United States using TMI's Canadian-licensed MSAT-1 satellite. The METs will be used to provide tracking and asset management data services "TAMS" to land vehicles and maritime vessels. TMI says that these terminals are a new

1 The "L-band" is a general designation for frequencies from 1 to 2 GHz. In this Order and Authorization, however, the term "L-band" denotes only the 1545-1559 MHz and 1646.5-1660.5 MHz frequency band ("upper L-band") and the 1525-1530 MHz, 1530-1544 MHz, and 1626.5-1645.5 MHz frequency bands ("lower L-band"). The United States is the only country that distinguishes between the "upper" and "lower" L-band.

2 A full-duplex MET can receive a data message while transmitting one. Conversely, a half-duplex cannot receive and transmit data messages simultaneously. It must finish transmitting before it can receive an incoming message.

series of data METs that will provide MSS customers with advanced capability to track remote assets and to maintain information about those assets in a consistent and reliable manner. AMSC Subsidiary Corporation (AMSC),<sup>3</sup> Space System License, Inc. and Iridium LLC (collectively Motorola) and Globalstar L.P. (Globalstar) filed Petitions to Deny the application.

### **III. Discussion**

3. In 1997, the United States, together with 68 other countries, signed the World Trade Organization (WTO) Agreement on Basic Telecommunications Services. In the WTO Agreement, the United States committed to open its satellite market to foreign systems licensed by WTO-member countries to provide fixed and mobile satellite services (excluding direct-to-home fixed satellite service). The Commission thereafter adopted the *DISCO II Order*, which implements procedures under which it will evaluate applications by satellite systems licensed by other WTO-member countries to access the U.S. market.<sup>4</sup> In *DISCO II*, the Commission said that requests to serve the U.S. market would be granted, provided they are found to be in the public interest. In making this determination, the Commission said that it would take into account factors such as competition in the United States, spectrum availability, eligibility requirements, technical requirements, and national security, law enforcement, foreign policy and trade issues.<sup>5</sup>

4. Each of the three petitioners contends that TMI has not demonstrated that its operations will be consistent with the *DISCO II* requirements. Briefly, AMSC asserts that grant of TMI's application would conflict with the Commission's spectrum management policy, would not comport with technical requirements applicable to MSS, and would harm competition. In addition, AMSC says it agrees with the position taken by both the Department of Justice and the Federal Bureau of Investigation that action on TMI's application should be deferred until certain law enforcement and national security concerns are addressed. Motorola and Globalstar both contend that grant of the application would violate a "freeze" that the Commission has on applications seeking to provide MSS in the lower L-band. Motorola also submits that the proposed TMI earth terminals may cause unacceptable out-of-band interference with its MSS system that operates on nearby frequencies.

5. Prior to filing this application, TMI had filed another blanket license application to operate a separate series of METs.<sup>6</sup> AMSC, Motorola, and Globalstar also opposed that application. Each petitioner presented the same arguments that it presents now. In granting that application, the Commission explained at length why TMI (as well as SatCom Systems, Inc., a companion applicant) is legally qualified to hold blanket earth station authorizations and why TMI's operations would be consistent with the Commission's spectrum management, technical, and legal requirements. The Commission also explained that the government's law enforcement and national security concerns have been allayed by an agreement between TMI and the Executive Branch. See *SatCom Systems*, 14 FCC Rcd 20798 (1999), *aff'd sub nom.*

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<sup>3</sup> AMSC Subsidiary Corporation has since changed its name to Motient Services Inc.

<sup>4</sup> See *Amendment of the Commission's Regulatory Policies to Allow Non-U.S. Licensed Space Stations to Provide Domestic and International Service in the United States*, Report and Order, 12 FCC Rcd 24094 (1997).

<sup>5</sup> *Id.* at 24100.

<sup>6</sup> See File No. 730-DES-P/L-98 [IBFS File No. SES-LIC-19980330-00339E980179].

*AMSC v. FCC*, No. 99-1513 (D.C. Cir. July 11, 2000). The petitions raise no new arguments here. Consequently, no further discussion is warranted.

6. Technical Requirements: TMI has met the technical requirements to operate the METs in full-duplex mode. We have, however, imposed certain conditions on TMI's operation of these METs to ensure TMI's compliance with these requirements. For example, in the upper L-Band, mobile satellite service operators must comply with a footnote to the U.S. Table of Frequency Allocation and a provision in the ITU's Radio Regulations regarding priority and preemptive access for Aeronautical Mobile Satellite (Route) Service (AMS(R)S)<sup>7</sup> operation in a portion of this band.<sup>8</sup> Consistent with these requirements, TMI's operation in the bands 1545-1558.5 and 1646-1660 MHz is on a secondary basis to the U.S. AMS(R)S requirements of other U.S.-authorized MSS providers operating in these bands. In addition, the level of out-of band and spurious emissions from TMI's METs must be consistent with Section 25.202(f) of the Commission's Rules, 47 C.F.R. § 25.202(f), with the 1994 Memorandum of Understanding among the Commission, the National Telecommunications Information Administration, and the Federal Aviation Administration to protect Global Navigation Satellite Systems (GNSS), and any applicable standards subsequently incorporated in the Commission's rules to protect GNSS.<sup>9</sup>

#### IV. Conclusion

7. For the reasons specified by the Commission in *SatCom Systems*, we find that TMI has met all the necessary technical requirements, as well as demonstrated that its operations will comport with the *DISCO II* requirements and that it is qualified to hold the blanket earth station authorizations requested. Consequently, we grant TMI authority to operate up to 100,000 full-duplex METs to provide MSS service in the United States over the MSAT-1 satellite using spectrum coordinated by Canada.

#### V. Ordering Clauses

8. Accordingly, IT IS ORDERED that Application File No.SES-LIC-19990318-00435 IS GRANTED and TMI Communications and Company, L.P. IS AUTHORIZED to operate up to 100,000 full-duplex tracking and asset management data services mobile earth terminals through the Canadian licensed MSAT-1 space station in portions of the 1545-1558.5 and 1646.5-1660 MHz band coordinated for the TMI satellite network in the most recent annual L-band operator-to-operator coordination

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<sup>7</sup> AMS(R)S is a mobile satellite service using mobile terminals on-board aircraft. This service can be used to support domestic and international air traffic, including air traffic control. The (R) indicates that the spectrum is used for aeronautical communications related to the safety and regularity of flights primarily along national and international civil air routes.

<sup>8</sup> Footnote US 308 of the U.S. Table of Frequency Allocations, 47 C.F.R. § 2.106, states: "In the frequency bands 1549.5-1558.5 MHz and 1651-1660 MHz, the Aeronautical-Mobile-Satellite(R) requirements that cannot be accommodated in the 1545-1549.5 MHz, 1558.5-1559 MHz, 1646.5-1651 MHz and 1660-1660.5 MHz bands shall have priority access with real-time preemptive capability for communications in the mobile satellite service. Systems not interoperable with the aeronautical mobile-satellite (R) service shall operate on a secondary basis." Account shall be taken of the priority of safety-related communications in the mobile-satellite service. S5.357A in the ITU's Radio Regulations has a similar priority and preemptive access requirement. *See also, SatCom Systems, Inc.*, 14 FCC Rcd 20798 at ¶¶ 47-50.

<sup>9</sup> *See SatCom Systems, Inc.*, 14 FCC Rcd 20789 at ¶¶ 51-53.

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agreement, in accordance with the technical specifications set forth in its application and its Radio Station Authorization, and consistent with the Commission's rules.

9. IT IS FURTHER ORDERED that in the absence of an annual operator-to-operator coordination agreement, TMI's operation in the 1545-1558.5 and 1646.5-1660 MHz band will be on a non-interference basis. Consequently, in the absence of a coordination agreement, TMI shall not cause harmful interference to any other lawfully operating satellite or radio facility and shall immediately cease operations upon notification of such interference. Furthermore, TMI must notify the other four space station operators in these frequency bands that it will be operating on a non-interference basis. TMI must also notify its customers in the United States that TMI's operations are on a non-interference basis.

10. IT IS FURTHER ORDERED that the TMI Communications and Company, L.P. must comply with the provisions of the Agreement between TMI and the Department of Justice and the Federal Bureau of Investigation, dated September 10, 1999, which is designed to address national security, law enforcement, and public safety concerns of the Department of Justice and the Federal Bureau of Investigation. Nothing in the Agreement of the Implementation Plan is intended to limit any obligation imposed by Federal law or regulation including, but not limited to, 47 U.S.C. § 222(a) and (c)(a) and the Commission's implementing regulations.

11. IT IS FURTHER ORDERED that TMI Communications and Company, L.P. must operate its mobile earth terminals in a full-duplex mode and have the following minimum set of capabilities to ensure compliance with US Footnote 308 to Section 2.106 of the Commission's rules, 47 C.F.R. § 2.106, and ITU Radio Regulations S5.357:

- a. All MET transmissions shall have a priority assigned to them that preserves the priority and preemptive access given to aeronautical distress and safety-related communications sharing the band;
- b. Each MET shall be assigned access to a unique technical identification number that will be transmitted upon any attempt to gain access to a system;
- c. After a MET has gained access to a system the mobile terminal shall be under control of a Land Earth Station and shall obtain all channel assignments from it;
- d. All METs that do not continuously monitor a separate signaling channel shall have provisions for signaling within the communications channel;
- e. Each MET shall automatically inhibit its transmissions if it is not correctly receiving a separate signaling channel or signaling within the communications channel from its associated Land Earth Station; and
- f. Each MET shall automatically inhibit its transmissions on any or all channels upon receiving a channel-shut-off command on a signaling or communications channel it is receiving from its associated Land Earth Station.

12. IT IS FURTHER ORDERED that, in accordance with US Footnote 308, the operation of TMI Communications and Company, L.P.'s METs, in the bands 1545-1558.5 and 1646.5-1660 MHz, is

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on a secondary basis to U.S. AMS(R)S requirements of other U.S.-authorized MSS providers operating in the 1545-1559 and 1646.5-1660 MHz bands.

13. IT IS FURTHER ORDERED that TMI Communications and Company, L.P. will be subject to any applicable out-of-band emission standards subsequently incorporated in the Commission's rules for protection of the Global Navigation Satellite Service.

14. IT IS FURTHER ORDERED that the Petitions to Deny of AMSC Subsidiary Corporation, Space System License, Inc. and Iridium LLC, and Globalstar L.P. ARE DENIED.

15. IT IS FURTHER ORDERED that this license shall not vest in the licensee any right to operate Earth stations or use the assigned frequencies beyond the term thereof or in any manner other than authorized herein, and neither the licensee nor the rights granted thereunder shall be assigned or otherwise transferred in violation of the Communications Act.

16. IT IS FURTHER ORDERED that the license term for the mobile earth terminals that are authorized by the *Order and Authorization* is for ten years.

17. IT IS FURTHER ORDERED that TMI Communications and Company, L.P. is afforded thirty days to decline this authorization. Failure to respond within this period will constitute formal acceptance of the authorization.

### FEDERAL COMMUNICATIONS COMMISSION

Thomas S. Tycz  
Chief  
Satellite and Radiocommunication Division